

Triggers

A Lost Art

By Sergeant First Class Kenneth H. Lambert



At 0500, Stalker 04 begins to pick up vehicle noises from the primary axis of advance as anticipated. A quick recheck of the target list and map confirms that target AK2005, indeed, will be the primary means of attack on what promises to be the lead combat reconnaissance patrol as it enters the northern mouth of the valley below.

A whispered call comes over the radio from Stalker 03, a member of the forward scout team in a hide position, confirming an enemy 1/3 (one T-80 tank and 3 BMPs) moving forward down the dry river bed. Given the lay of the land, it's obvious the enemy is trying to gain entry into the task force's forward security zone.

The call to the battalion fire support element (FSE) requests, "Fire target AK2005, special instructions, 'At My Command'"; the call back relays, "Ready, AK2005."

At the established trigger, the command, "'Cancel At My Command'; fire target AK2005" will be relayed as soon as the enemy crests the inter-visibility (IV) line at 34 Northing. Suddenly the lead BMP is confirmed visually. The trigger command is given and immediately "Shot target AK2005" reports rounds on the way. The announcement of "Splash target AK2005" signals the initial volley of the battalion—six rounds of dual-purpose improved conventional munition (DPICM) is coming down onto the intercept point.

This scenario briefly describes the proper execution of triggers. It illustrates both the signal to ensure the guns are ready to fire (tactical trigger) and the signal to fire the target (technical trigger). Unfortunately, too many task force FSEs in rotations at the National Training Center (NTC), Fort Irwin, California, can't execute tactical and technical triggers.

The Tactical Trigger. The first element of an effective trigger is for something to happen tactically to get the firing unit ready to fire. There must be an identified, preordained event that sets the conditions for the technical execution of fires. Without a signal to get the firing unit ready, the technical trigger (the execution of the fires) will fail, leading to untimely fires and, potentially, friendly casualties. This cue, this tactical trigger, must mirror the concept of fires.

One of the most important aspects of implementing the tactical trigger is the need to incorporate additional assets—not just the shooter assigned to execute the target. This means observation in depth to hand off the target being engaged to the next element observing or to the shooter of the target. This need is due to the speed and depth of the modern battlefield coupled with the inability of the observer to see far enough into the battlespace to determine the relevance of a particular target.

A scout or combat observation lasing team (COLT) employed at a named area of interest (NAI) or target area of interest (TAI) is vital in determining which avenue of approach the enemy is taking or in initiating preparatory fires or smoke when conducting offensive operations. This determination of the enemy's approach requires close coordination between the various battlefield operating systems (BOS) of the brigade combat team (BCT) or battalion task force. Only with a combined arms commitment to identify and execute this tactical portion of a fire mission will the observer be able to focus and execute timely, accurate fires for maneuver.

Another important aspect of the tactical trigger is understanding battle rhythm in terms of the pace of a particular operation. This is, for example, knowing how long a particular company team will take to bound five kilometers into its support-by-fire position. Gaining such knowledge takes many hours of training—from the company fire support team's (FIST's) executing the trig-

gers to the battalion FSE's monitoring the fire mission progression and performing its battle tracking drill.

Of course, the breaching operation is still one of the "hardest nuts to crack" due, in large part, to timing the suppression and obscuration fires to coincide with the attempt made to reduce the obstacle by the breach team. Force protection measures, in terms of radar zones, also must be closely monitored and timed. These are all critical events set in motion by the identification of the tactical trigger as it relates to events unfolding on the battlefield.

The Technical Trigger. When does the unit fire? The answer lies in taking a closer look at technical calculations. By applying battlefield calculus—time-of-flight, transmission time, a reasonable estimation of the enemy's rate of travel, mission processing time and gun line reaction time—the FSO determines when and where to set the technical trigger. Identifying both triggers is "the trick."

In setting the technical trigger, the FSO defines the intercept point. This is the point where the rounds meet the enemy. Unfortunately, the rounds tend to fall everywhere but the intercept point, often due to the FSO's failing to incorporate battlefield calculus.

The identified intercept point based on the enemy's rate-of-travel is key to the equation. Time is of the essence; each second equates to a segment of ground traveled by the enemy. For instance, given a speed of seven meters per second, six seconds of transmission time, a 45-second processing time (assuming this is a pre-planned priority target) and a 33-second time-of-flight, the technical trigger must be a minimum of 588 meters out from the intended intercept point.

Variables come into play, such as whether or not the firing unit has had to move since the last time firing data was computed for a particular location or whether or not the established intercept point is a pre-planned target or a target of opportunity. Given the range to the intercept point as well as the two variables mentioned, the timeliness of the tactical trigger ensures the viability of the technical trigger. The FSO must compute the data quickly and accurately to implement the technical trigger.

Triggers in Offensive Operations. When considering tactical and technical triggers and how they relate to of-

fensive operations, the FSO must understand the battle rhythm of an operation. If smoke and suppressive fires of suspected observation posts (OPs) are required before the lead company team crosses the line of departure (LD), then the tactical trigger involves verifying that units are "ready" to fire on the appropriate targets as the company team approaches the LD. The technical trigger would be based on either the battalion FSE's or company FIST's verifying the time-of-flight with the firing unit fire direction center (FDC) and factoring in the smoke build-up time.

Suppressive fires involve the same types of considerations: time-of-flight, taking into account the attack criteria (destroy, neutralize or suppress) on the suspected OP and assets/volleys allocated. The implementation of these technical triggers necessitates close coordination with maneuver during the planning phase as well as demonstration of tactical patience during the execution phase.

Tactical and technical triggers during offensive operations involve more intangibles and require more flexibility. Fortunately, there is some tangible information available to alleviate much of the guesswork. Simply trying to execute fires on the move as an afterthought will prioritize the request for fires as just that—an afterthought. Serious consideration for a trigger as opposed to "As Acquired" will help keep the friendly lead company team from being the one that "is acquired."

There is no magic fix. More often than not, units get wrapped up in whether or not their "trigger kits" are up to snuff and what should be done about the lack of charcoal and a pot to burn it in.

In the old days, an observer had to be intimately familiar with his target area of surveillance. Given today's proliferation of laser and self-location devices, the limits of the surveillance area have greatly increased. When time is constrained, the observer can refine a target and trigger as long as he has a good visual of the area from his OP.

Ideally, the observer will walk or drive the engagement. He should reconnoiter the target area during optimum conditions to ensure he'll be totally familiar with and properly oriented on the area during hours of limited visibility. He should pay close attention to direction and vertical angle readings of specific target and trigger locations as well as the locations of maneuver troops.

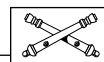
Developing visibility diagrams along with a careful map reconnaissance will help validate the trigger and intercept points on the ground. The bottom line is the FA has more than enough equipment and techniques to preclude the use of the proverbial "burning bush" indicator on the battlefield. Tactical and technical triggers should be tactically and technically viable.

Planning and executing offensive and defensive triggers entail considerations peculiar to each. Implementation in the defense can be easier, considering the variables and computations involved. In the offense, observers need a more intimate knowledge of the supported maneuver force to integrate triggers into the overall scheme of maneuver.

Units must do away with the practice of "rubber stamping" the calculations used to incorporate and devise technical triggers. Execution matrixes that list "As acquired" as the trigger indicate a "hand wave" approach to the timely execution of a target. The improper use of priority-of-fires delegation also indicates a lack of understanding of how to implement the maneuver commander's intent for fires.

Without a methodical, logical succession of priority in the fire plan that mirrors the maneuver phases, there is no reason to execute triggers. If a unit has no fires, what good do well-executed tactical and technical triggers do?

Our units must deliver fires to the deadly accuracy and timeliness required and expected of America's Field Artillery.



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